Примеры записи рекурсивных функций и предикатов

$y = p_n \equiv Pr(y) \wedge \pi(y) = n + 1 \in \mathcal{PR}_*$; $p_n = (\mu y)_{\leqslant 2^{2^n}}(y = p_n)$.
$Seq(x) \equiv x > 1 \wedge (\forall y)_{\leqslant x}(\forall z)_{\leqslant x}\Big(Pr(y) \wedge Pr(z) \wedge y < z \wedge z|x \to y|x\Big)$

$$
\begin{aligned}
URM(z) \equiv Seq(z) \wedge \Big((z)_{l(z)\dot{-}1} = [5, l(z)]\Big) \wedge \\
\wedge (\forall L)_{<l(z)}\Bigg(Seq((z)_L) \wedge \Big(L \neq l(z) \dot{-} 1 \to ((z)_L)_0 \neq 5\Big) \wedge \\
\wedge \Big\{(z)_L = [5, L+1] \vee \\
\vee (\exists i)_{\leqslant z}(\exists a)_{\leqslant z}\Big((z)_L = [1, L+1, i+1, a]\Big) \vee \\
\vee (\exists i)_{\leqslant z}\big\{(z)_L = [2, L+1, i+1] \vee (z)_L = [3, L+1, i+1] \vee \\
\vee (\exists M)_{<l(z)}(\exists R)_{<l(z)}\big((z)_L = [4, L+1, i+1, M+1, R+1]\big)\big\}\Big\}\Bigg).
\end{aligned}
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